

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/27651

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C22B34/12 B22F9/28 C22C1/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C22B B22F C22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, COMPENDEX, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 958 106 A (ANDERSON RICHARD PAUL ET AL) 28 September 1999 (1999-09-28) cited in the application	1
X	claim 1; figures	60-70,80
A	US 2 647 826 A (FERNANDO JORDAN JAMES) 4 August 1953 (1953-08-04)	1
X	claim 1; figures	60,80
A	GB 722 184 A (DAVID HARRY PICKARD; JOSEPH PEPPO LEVY; LIONEL PICKARD) 19 January 1955 (1955-01-19)	1
X	claim 1; figure 1	60,80

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *8* document member of the same patent family

Date of the actual completion of the International search

20 November 2003

Date of mailing of the International search report

02/12/2003

Name and mailing address of the ISA

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 28-59, 71-79, 81-84
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 28-59, 71-79, 81-84

In view of the large number (10 independent method claims, one independent device claim and 5 independent product claims) and also the wording of the claims presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search is impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear and concise, namely the method according to claim 1 (with appendant claims 2-27), the device according to claim 60 (with appendant claims 61-70) and the product according to claim 80. The remaining claims 28-59, 71-79, 81-84 will not be searched.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

information on patent family members

Internat Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5958106	A	28-09-1999	US 5779761 A	14-07-1998
			US 2002148327 A1	17-10-2002
			US 2002152844 A1	24-10-2002
			US 2003145682 A1	07-08-2003
			US 2002005090 A1	17-01-2002
			US 2003061907 A1	03-04-2003
			AU 686444 B2	05-02-1998
			AU 3320195 A	04-03-1996
			BR 9508497 A	23-12-1997
			CA 2196534 A1	15-02-1996
			CN 1161064 A , B	01-10-1997
			DE 69521432 D1	26-07-2001
			DE 69521432 T2	29-05-2002
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			ES 2161297 T3	01-12-2001
			JP 10502418 T	03-03-1998
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			KR 241134 B1	02-03-2000
			NO 970444 A	26-03-1997
			RU 2152449 C1	10-07-2000
			WO 9604407 A1	15-02-1996
US 2647826	A	04-08-1953	NONE	
GB 722184	A	19-01-1955	NONE	